

Case 2999***Umbellula* Cuvier, [1797] (Cnidaria, Anthozoa): proposed conservation as the correct original spelling, and corrections to the entries relating to *Umbellularia* Lamarck, 1801 on the Official Lists and Indexes of Names in Zoology**

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Abstract. Cuvier [1797] published the generic name *Ombellula* for a species of Arctic deep-sea pennatulacean (sea pen) which had been named *Isis encrinus* by Linnaeus (1758). In 1800 Cuvier spelled the name as *Umbellula*, and this generic name for *U. encrinus* and other species has been widely and universally used for more than 120 years. A recent work has used the spelling *Ombellula* for the first time since 1797, and the conservation of *Umbellula* is proposed. *Umbellularia* Lamarck, 1801, a junior objective synonym of *Umbellula*, was in usage during the earlier part of the 19th-century; the entries on the Official Lists and Indexes of Generic and Family-Group Names relating to this name are erroneous and corrections are proposed.

Keywords. Nomenclature; taxonomy; Anthozoa; Pennatulacea; sea pens; *Ombellula*; *Umbellula*; *Umbellularia*; *Umbellula encrinus*.

1. John Ellis (1753, 1755) described and illustrated one of two specimens of a giant deep-sea pennatulacean collected at latitude 79°N. near Greenland (perhaps really Spitzbergen: Lindahl, 1874, pp. 3, 14) by Captain Adrians of the whaling ship *Britannia* (for the history of these and other specimens see Gray, 1870, Lindahl, 1874 and Danielssen & Koren, 1884). Ellis named the species as 'Hydra marina arctica' or 'Clustered Sea-Polype'. The second specimen was described by Mylius (1753, 1755) as 'Asterias zoophytos composita' or 'Zoophytaria groenlandica'. No other specimens were reported for more than a century.

2. Linnaeus (1758, p. 800) placed the animal described by Ellis in his genus *Isis* as the species *I. encrinus*; he did not mention the description by Mylius. Ellis & Solander (1786, p. 67) transferred it to *Pennatula*.

3. Cuvier described the pennatulacean genus 'Ombellules, *Ombellula*' on p. 675 of his *Tableau élémentaire de l'histoire des animaux*; this work was published between 22 September and 24 December 1797 (see Donovan, BZN 53: 248), so Cuvier's name should be cited with the date [1797]. The genus contained no nominal species, but Cuvier stated 'On n'en connoît qu'une espèce, qui se trouve dans la mer de

Greenland'; the description shows that *Ombellula* was based on the specimen described by Ellis and named *Isis encrinus* by Linnaeus.

4. Wiedemann (1800) published a German translation of Cuvier [1797], and on p. 583 latinized 'Ombellules' to *Umbellula*. Cuvier himself (1800, Table 9) changed *Ombellula* to *Umbellula*. Under the Code the *Umbellula* of Cuvier (1800) or Wiedemann is an incorrect spelling of the *Ombellula* of 1797, but the original spelling remained entirely unused for nearly 200 years (see para. 10 below).

5. Lamarck (1801, p. 380) mentioned Ellis (but not Mylius) when establishing the nominal genus 'Umbellulaire, *Umbellularia*'; this contained the single species *Umbellularia groenlandica*, with *Penmatula encrinus* (Linnaeus, 1758) given as a synonym. No reason was given by Lamarck for using the specific name *groenlandica*, which is a junior objective synonym of *encrinus*; on the previous page (p. 379) he had used *Encrinus* as a generic name for two crinoid species, and he may have been reluctant to employ the word in a different sense; 'Encrinus' had been used since pre-Linnaean times for fossil crinoids (see BZN 18: 65-68 for a historical survey). Blumenbach (1779, p. 435) used *Encrinus* for a genus containing three species: a Recent crinoid, an ascidian, and the new anthozoan species *E. mylii*. The name *mylii* was based on the description of the second Greenland specimen by Mylius (see para. 1 above) and is a synonym of *encrinus* Linnaeus and *groenlandica* Lamarck. In Opinion 636 the Commission conserved *Encrinus* Lamarck, 1801 by suppressing all previous uses of *Encrinus* as a generic name.

6. Early 19th-century workers did not use Cuvier's name *Ombellula* or *Umbellula* but instead adopted *Umbellularia* Lamarck, 1801. Gray (1840, p. 75) based the family-group name UMBELLARIADAE on the generic name 'Umbellaria'; the latter was presumably an error for *Umbellularia*, since this was the name used elsewhere by Gray (for example in 1860, p. 25, as *Umbellularia groenlandica*) and in 1870 (p. 38) he inaccurately referred to his 1840 family name as having been spelled UMBELLULARIADAE.

7. Gray (1870, p. 38) in a suprageneric 'Section Umbellularia' reintroduced the senior generic synonym *Umbellula* [sic] Cuvier, [1797]. He included a single species, mentioning its two names *encrinus* Linnaeus and *groenlandica* Lamarck; under Article 69a(vii) of the Code Gray's action fixes *Isis encrinus* Linnaeus, 1758 as the type species by subsequent monotypy. *Umbellula* quickly became accepted (e.g. Lindahl, 1874; Kölliker, 1875) and the last usage of *Umbellularia* as a valid name was by Wyville-Thomson (1878, p. 142). For the past 120 years the usage of *Umbellula* has been both widespread and universal, and the Commission Secretariat has a list of more than 60 references to illustrate this. The senior specific name *encrinus* Linnaeus, 1758 is also in universal use. Species of the genus occur worldwide, and *Umbellula* has been used not only in taxonomic works but also in textbooks, handbooks, popular accounts and publications dealing with deep-sea biology and biogeography. Recent examples include Broch (1958), Heezen & Hollister (1971), Bayer (1973), Pasternak (1975), Grasshoff (1982, 1991), Werner (1984), Schaefer (1985), Tixier-Durivault (1987) and Kilius (1993).

8. Lindahl (1874, p. 25) based the family name UMBELLULAE (correctly UMBELLULIDAE) on *Umbellula*. This name has been very widely used; under Article 40b of the Code it takes the precedence of Gray's name of 1840 based on the junior generic synonym *Umbellularia* (para. 6 above), and it should be cited as UMBELLULIDAE Lindahl, 1874 (1840).

9. In 1960 Margaret Spillane of the Commission Secretariat published a report (BZN 18: 65–68) on the crinoid generic name *Encrinus* (cf. para. 5 above), together with proposals mainly concerning that name. This action was taken in response to an application by Dr T. Mortensen, who had subsequently died. Unfortunately the proposals also included placing the supposedly valid *Umbellularia* Lamarck, 1801 on the Official List. Neither Spillane nor anybody else realized or commented that the anthozoan name *Umbellularia* had long been entirely replaced by the senior Cuvier synonym *Umbellula*; indeed *Umbellula* was not mentioned. In Opinion 636 (September 1962) *Umbellularia* was placed on the Official List of Generic Names, with *Isis encrinus* Linnaeus, 1758 as the type species by monotypy (in fact under Article 68d of the Code the type species is *Umbellularia groenlandica* Lamarck, 1801, since this name was originally used as valid even though it is a junior objective synonym of *I. encrinus*; see para. 5 above). Lindahl's family name of 1874 (cf. para. 8 above) was placed on the Official List with the erroneous statement that it was based on *Umbellularia* (for which reason it was 'corrected' to UMBELLULARIIDAE), but Gray's name of 1840 actually based on that nominal genus was not mentioned. For reasons of the priority and usage of *Umbellula* and of accuracy the entries on the Official Lists and Indexes relating to *Umbellularia* and the family names need to be corrected, and this is proposed in para. 12 below.

10. As reported above, *Umbellula* has been in wide and universal use for more than a century. Despite this, and in contravention of Article 23b of the Code, Williams (1995, p. 118) has very recently adopted the spelling *Ombellula*, which had never been used since the original publication by Cuvier in 1797. Williams referred 42 species to *Ombellula*, and stated that the type species was *Isis encrinus* by the designation of Danielssen & Koren (1884); the fixation was actually by Gray's subsequent monotypy in 1870 (para. 7 above).

11. Introduction of the completely unused spelling *Ombellula* would be very destabilizing, and the long universal usage of *Umbellula* Cuvier, [1797] constitutes a clear prima facie case for its conservation.

12. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers to rule that the correct original spelling of the name *Ombellula* Cuvier, [1797] is *Umbellula*;
- (2) to place on the Official List of Generic Names in Zoology the name *Umbellula* Cuvier, [1797] (gender: feminine), type species by subsequent monotypy (Gray, 1870) *Isis encrinus* Linnaeus, 1758 (spelling emended by the ruling in (1) above);
- (3) to emend the entry on the Official List of Specific Names in Zoology for the name *encrinus* Linnaeus, 1758, as published in the binomen *Isis encrinus*, to record that *Isis encrinus* is the type species of *Umbellula* Cuvier, [1797];
- (4) to place on the Official List of Family-Group Names in Zoology the name UMBELLULIDAE Lindahl, 1874 (1840), (type genus *Umbellula* Cuvier, [1797]);
- (5) to delete the entry on the Official List of Generic Names in Zoology for the name *Umbellularia* Lamarck, 1801;
- (6) to delete the entry on the Official List of Family-Group Names in Zoology for the name UMBELLULARIIDAE Lindahl, 1874;

- (7) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:
- (a) *Ombellula* Cuvier, [1797] (an incorrect original spelling of *Umbellula* by the ruling in (1) above);
 - (b) *Umbellularia* Lamarck, 1801 (a junior objective synonym of *Umbellula* Cuvier, [1797]);
- (8) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the name UMBELLULARIIDAE Gray, 1840 (type genus *Umbellularia* Lamarck, 1801, a junior objective synonym of *Umbellula* Cuvier, [1797]) (replaced under Article 40 by UMBELLULIDAE Lindahl, 1874 (1840));
- (9) to delete from the Official Index of Rejected and Invalid Family-Group Names in Zoology the [inaccurate] entries for the following names:
- (a) UMBELLULAE Lindahl, 1874;
 - (b) UMBELLULEAE Kölliker, 1875.

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